Volunteer Firemen

AUGUST 1942

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston, Massachusetts

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... and all is well

The illustration shows an A.D.T. supervised watchman transmitting a signal to an A.D.T Central Station. At prescribed intervals during his tour of duty he sends these signals, and so long as they come in on schedule, the Central Station knows that "all is well."

But suppose that all is *not* well. Suppose that for any reason—accident, illness, attack by intruders—the watchman fails to signal. *With A.D.T. Supervision, failure of the watchman to signal on time is an automatic call for help.* The Central Station promptly investigates, dispatching armed and bonded guards when necessary to render emergency assistance, notifies designated officials, and arranges for continuity of the watch patrols if the regular watchman is incapacitated.

In conjunction with Watchman Supervision A.D.T. also provides Manual Fire Alarm Boxes to summon the fire department directly to the scene of any fire outbreak and emergency signaling devices for secretly summoning police assistance.

This comprehensive supervision and backing up of the watchman by an independent, outside organization of trained experts assures maximum effectiveness of guard and watchman forces. It keeps constant watch over the watchman's performance—not the following morning—but from minute to minute while he is making his patrols.

Write for free descriptive booklets.

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AGAINST FIRE · BURGLARY · HOLDUP

A NATION-WIDE ORGANIZATION

Volunteer Firemen

Volume 9 Number 8

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BUY WAR BONDS AND STAMPS!

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NEVER have farm products been of more importance than at the present time when foodstuffs are one of the chief weapons that will give the United Nations eventual victory in this great war. The cover picture this month shows the remains of a large dairy barn in Massachusetts after fire had done its work. This farm was fortunately located near a fire department and a good water supply. In all too many farm fires such facilities are lacking and frequently too little remains of the farm structure after the fire to get a good picture. In normal years the loss from farm fires has been estimated at $100,000,000 annually. This year the importance of farm products is such that money alone cannot measure the value of the products.

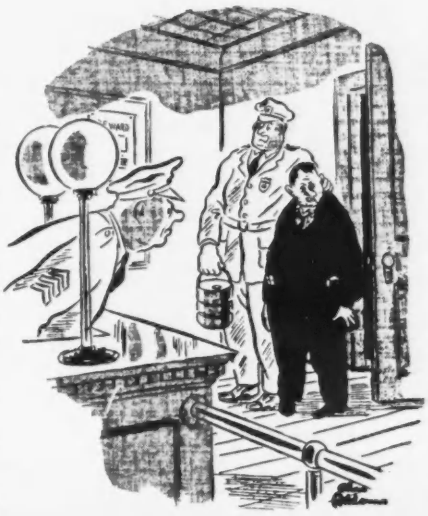
Fortunately, the farm fire problem is getting attention from both state and national agencies. VOLUNTEER FIREMEN reported last month on the rural fire protection plan in effect in Illinois. Michigan has likewise organized a state-wide rural fire protection program. The United States Department of Agriculture is planning a nation-wide farm and rural fire protection program. Dr. David J. Price, N.F.P.A. President, and Chairman of the N.F.P.A Committee on Farm Fire Protection, will take a leading part in this activity.

The rural fire protection program falls into two categories. First, prevention of farm fires and secondly, provision of fire equipment on the farm and in rural communities. The N.F.P.A. Committee on Farm Fire Protection has cooperated in the preparation of several publications on farm fire safety. It is suggested that persons interested in rural protection write for a copy of the N.F.P.A. bulletin "Preventing Farm Fires" which contains further information on this vital subject.

N.F.P.A. member Clifford Hudson, State Fire Coordinator of New Hampshire, calls attention to the fact that the usual civilian defense organization found in the larger cities and towns does not always fit the needs of the smaller towns and rural areas.

Frequently there is not sufficient manpower available to have separately organized and fully manned crews of air raid wardens, fire watchers, auxiliary firemen, auxiliary police, or the many other branches of a typical citizens' defense corps. Nevertheless, Mr. Hudson points out that proper organization for civilian defense is of vital importance in rural areas because power and communications lines, transportation facilities, small industries, and water supply sources are found in such areas. These facilities must be protected against damage by fire or sabotage. For example, the interruption of a power line due to a forest fire might delay production in distant defense plants.

The type of organization Mr. Hudson suggests for rural communities is a defense staff consisting of the chiefs of each of the essential defense services such as air raid wardens, fire, police, and others. Each service chief would study his particular problem and develop a definite program for action in any emergency. These leaders would be backed up by an alert and well-trained citizenry capable of meeting any type of emergency under proper leadership. While it is to be expected that building and forest fires would be the form of emergency most frequently encountered, the available manpower would be trained to carry out any assigned task whether fighting fires, handling unusual traffic conditions, enforcing blackouts, or guarding against sabotage. Thus the bulk of the limited manpower would be made available to the needs of the particular emergency rather than being assigned to specialize in some one type of defense activity.



"Not only a firebug, Sergeant—he uses GASOLINE."

LAST month 8 departments with 84 men joined the Volunteer Firemen's Section for the first time. Twenty-nine departments with 661 men renewed membership. This makes a total enrollment of 751 departments and 14,994 men. The following departments are newly enrolled:

Jackson Fire Department, Jackson, Alabama.

Abilene Fire Department, Abilene, Kansas.

Bendix Aviation Corporation, Owosso, Michigan.

Hamilton Fire Company, Inc., Trenton, New Jersey.

Melrose Volunteer Fire Department, Melrose, New Jersey.

Burnt Hills Fire Department, Ballston, New York.

Upper Arlington Fire Department, Columbus, Ohio.

Pioneer Fire Company No. 1, Marietta, Pennsylvania.

THE estimated U. S. fire loss for June, 1942, according to the National Board of Fire Underwriters, is $22,410,000, a decrease of $2,533,000 from the same month last year. Losses for the first six months of 1942 were $6,539,000 above the same period in 1941. These figures are based on notices of incurred loss received by insurance companies, members of the board, plus an allowance for unreported and uninsured losses. The following table shows the losses for the first six months of 1941 and 1942.

	1941	1942
January	$26,470,000	$35,565,000
February	26,102,000	30,819,000
March	31,471,000	30,505,000
April	29,330,000	27,960,000
May	25,637,000	23,233,000
June	24,943,000	22,410,000
Total 6 months	$163,953,000	$170,492,000

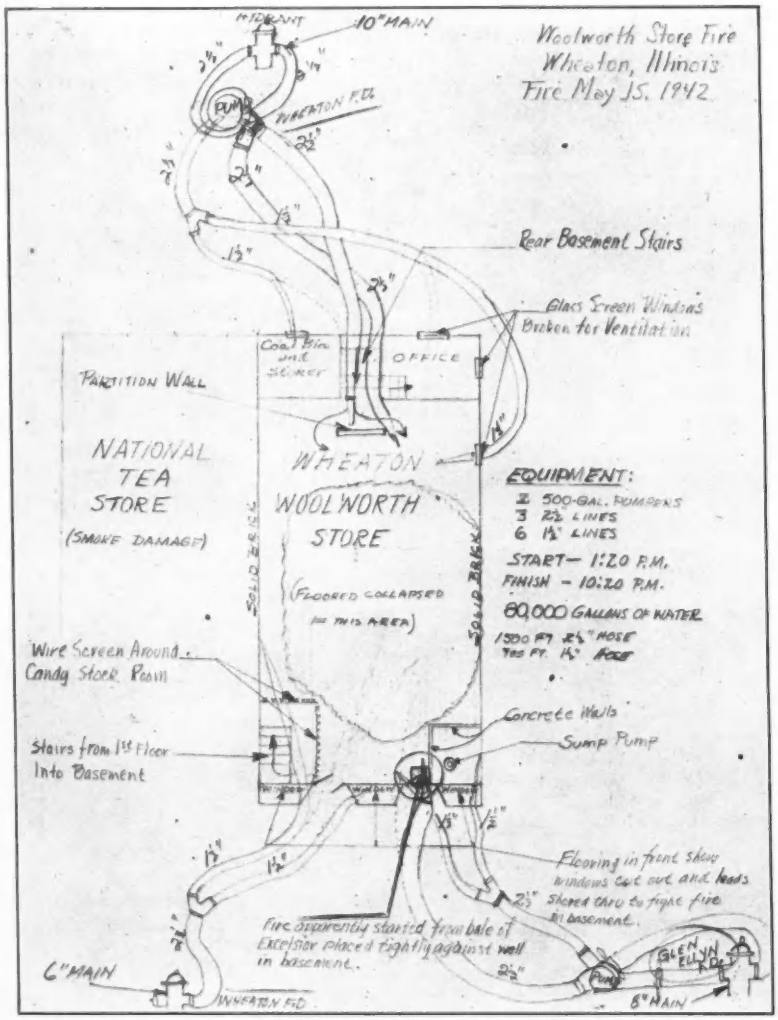
Battle Plans of Important Fires!

THERE is a lot of information regarding fire fighting operations that can best be recorded on a "battle plan" similar to the sketch of a fire fighting job in Wheaton, Illinois, reproduced on this page. Such a plan helps fire company members to visualize an entire fire fighting operation at a glance. It can be the basis for interesting discussions at fire company meetings where plans are laid for the handling of future fires. Many details that would be buried in an ordinary fire report are highlighted when shown on a sketch attached to the report.

It is not necessary to have a draftsman in the company to make fire ground sketches adequate for most purposes. Such plans do not have to be drawn accurately or to scale. The important thing is to show the main outline of the property involved, with important structural and fire protection features such as standpipes, stairways and elevator shafts noted. Nearby streets and available hydrants and water supplies are usually indicated. Next the location of the fire and the disposition of the fire fighting equipment on the job can be indicated.

While it is not necessary to have training as a draftsman to make a creditable drawing of a fire layout, a knowledge of standard plan symbols as used by fire protection engineers may make the sketches more interesting and useful. These symbols appear in Chapter 51 of the Crosby-Fiske-Forster Handbook of Fire Protection published by the N.F.P.A.

However, among the type of data easily recorded on any simple fire plan or sketch might be the length and size of hose lines used, nozzle sizes, approximate pump and nozzle pressures, origin of the fire and how it spread, points where ladders were used or where ventilation was carried out. The sequence in which the various hose lines were placed in operation can be easily noted on the plan.



In reporting a recent serious fire in a local store, Chief Phil S. Durant of the Wheaton, Illinois, Volunteer Fire Department (Member N.F.P.A.) sent in the above interesting sketch showing the fire fighting operations carried out by his department aided by the neighboring Glen Ellyn Fire Department. A rough sketch of this sort is of great value to a fire department in providing a visual record of how an important fire was handled.

THE usefulness of such battle plans suggests that the fire company may want to sketch in advance the layouts of some of the more important target hazards in which fires may occur. Such mapping will help members become familiar with the fire fighting problems involved in these properties. Then, after a fire, the same sketches can be used to indicate how the fire fighting operations actually were carried out.

Fire companies looking for interesting topics for their meetings might begin preparing such plans. If desired, the original data for each drawing can be worked out on a blackboard before the entire fire company before being copied on paper for permanent reference. If questions come up in the course of preparing the plans, members can be assigned to find the answers and report back to a subsequent meeting. The type of questions that will frequently prove interesting might be such matters as where the pumpers and hose lines should be placed to make best use of water supplies, where entrance should be made into the property and similar matters. As such information is obtained it should be noted on the plan.

Sometimes through the use of plans or sketches it is possible to find out how more effective use can be made of the available equipment. For example, a sketch of a fire fighting job might show that hose lines having a total estimated fire flow of 550 gallons per minute were supplied by pumpers having a total capacity of 1,000 gallons per minute. Thus it is immediately obvious that the full pumping capacity at the fire either was not needed or was not utilized. Further study of the plan might show that some other pumper and hose layout would be more advantageous at a future fire. Thus by keeping a file of diagrams showing how fires were fought, it is possible for a fire department to accumulate much valuable information regarding fire fighting operations that might otherwise be forgotten or overlooked.

CHICAGO FIRE DEPARTMENT TEACHES SIMPLE WAY TO FIGHT FIRE BOMBS

Incendiaries were designed for the same purpose as matches—to start fires. They should be handled with respect, but not with fear. It is upon the basis of this reasoning that the Chicago Fire Department developed the method of handling incendiary bombs shown on this page. Such an attack defeats the incendiaries before they can start fires. These pictures and captions appeared in the Chicago Sun for Sunday, May 31, 1942, and were made available to VOLUNTEER FIREMEN through the courtesy of Chief Anthony J. Mullaney of the Chicago Fire Department. His department has developed a motion picture illustrating this method of controlling incendiary bombs. It is true that you will do only harm by throwing a bucket of water on the incendiary. But, the Chicago Fire Department has found, you can throw the bomb into a bucket of water and it will go out. Be sure you have a full bucket of water. Don't touch the bomb with your hands.

A paper bag of sand, a bucket (or larger container) of water, and a shovel (or dustpan on a broom handle) should be in your attic. When the incendiary burns with a clear, white flame, attack.

Dump the sand on the floor, 10 feet from the bomb. Heavy socks or slacks, coat, bandana or other covering for hair, and canvas gloves with wristlets are protection against sparks.

Scoop up the sand. A shovel is better than a dustpan, if you have one, but don't add to the shortage of critical materials by buying anything for incendiary protection.

Sand is not necessary, but it will reduce the sparks. Sand WON'T extinguish the incendiary. The sparks aren't nearly as hot as hot tar—they resemble those from a 4th of July sparkler.

Scoop up bomb and sand, keeping your head and face back. The incendiary, if it has any explosive in it, will go off from 30 to 60 seconds after it hits your roof. By now it won't hurt you.

Throw bomb and sand into the bucket of water. A shallow pan of water will not extinguish the incendiary. The bomb should be immersed.

Use the water in the bucket to extinguish any fire that may have started. The water won't be hot and there won't be much fire if you work fast.

The incendiary, before and after. The tail of the bomb burns off quickly. The gloves come from a 10-cent store. Glasses should have nonflammable rims.

"GASOLINE IS DYNAMITE"

"GASOLINE hoarding was blamed by Middletown fire and police officials for the explosion and fire which demolished a home and garage at 52 Second Street last night."

Newspapers the country over might well keep a skeleton of that news story standing, ready to use at a moment's notice, unless we all stop to think before trying to beat the gasoline shortage and rationing. Now that rationing is in effect in some states and later may be extended to all the others, our first thought is of "putting some gasoline away for an emergency." It may be just that "putting some away" that will *cause* the emergency!

Would you knowingly store, in your garage, under your porch or in your cellar, 100 or more pounds of dynamite, with cap set and fuse leading out where any passerby might drop a match or a cigarette butt on it and blow your garage or your house skyhigh, perhaps with you or your family inside? You would not!

But, you ask, what harm can possibly come of the storing away of a few gallons of gasoline? Why this talk about dynamite?

Why? Because, under certain conditions over which you have little control, gasoline and dynamite have almost the same destructive explosive power. And, worse, it is almost axiomatic that a raging fire immediately follows and completes the destruction begun by a gasoline explosion.

We all know what gasoline is. We know how it looks and how it smells. We also think that we know how to use it but sometimes facts prove that the opposite is true. Certainly, it can be said that familiarity has bred carelessness. Ask your gasoline dealer or anyone who handles gasoline as a commodity, what precautions they take with this innocent-looking liquid whose energy engineering skill has harnessed, so that only a few drops will drive your car—a ton or more of steel—hurtling over the road with the speed and power of a hundred wild horses.

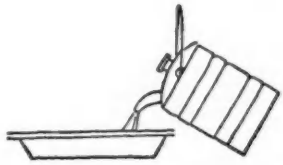
This is a digest of an article printed in The Travelers Standard published by The Travelers Insurance Companies, Hartford, Connecticut.

The purveyors of both gasoline and dynamite may consider the comparison of their products to be odious but both products are essential sources of power when properly used. Misuse of either a flammable liquid such as gasoline, or an explosive such as dynamite is likely to prove dangerous.

While the flash point of gasoline varies, the lowest temperature at which it will vaporize in sufficient quantities to create an explosive mixture with air, is usually much below zero! And how much gasoline vapor is necessary to create an explosive mixture with air? We know that a concentration of only 1.5 per cent to 6 per cent by volume is enough. That means that in an average-sized room—a room 12 x 12 x 9—vapor from only three quarts of gasoline would make every cubic foot of the air in that room explosive. Usually, however, only about one cubic yard of air near to the gasoline container need be so charged to result in an explosion; and to charge that cubic yard, only about two ounces of gasoline must vaporize. Those two ounces of gasoline would, in controlled explosions within a motor, move a large sedan about 500 feet along a level road. Imagine the power released when that same vapor-air mixture is exploded all at once! Gasoline vaporizing in air gives off more than one hundred times its bulk in vapor, and converts more than 1,500 times its volume of air into an explosive mixture. Any igniting agent will cause that explosive mixture to expand, literally "in a flash," to 4,000 times its volume.

Well, you may say, who would be so foolish as to light a match or to do anything else to ignite that explosive mixture?

Certainly, you would not if you could possibly help it. But you have little or no control over the conditions that may cause ignition from a spark of static electricity or some other unforeseen factor. A static spark may result from no more than the pouring of the gasoline from one container into another. The contact of the two vessels, the friction of the swirling gasoline, or the unintentional and slight friction of two nearby non-conducting substances, may cause enough of a static spark to result in ignition.



GASOLINE vapor is heavier than air and will concentrate near the floor, or in depressions, below the line of windows and usual streams of ventilation. Under certain conditions, the vapor has been known to actually flow, retaining its explosive concentration, for a distance of more than a hundred feet. In one instance, an explosion and fire resulted from the ignition of vapor by a bonfire situated 150 feet from the source of the vapor. Logically, any inclosed or poorly ventilated space, particularly a cellar, where the vapor may collect and remain for a considerable time, is not only a poor place to store gasoline, or even to use it and thereby expose it to evaporation—it is a downright dangerous location, as well.

The records are not entertaining. A young woman was fatally burned and her husband critically injured when the vapor from a leaking can in which they had stored two gallons of gasoline ignited—the explosion blew the door shut and trapped them in the burning cellar until the husband broke down the door. Three families driven from their homes when gasoline, stored in drums beneath the front porch of their dwelling, exploded and turned the building into a raging inferno. No, the records are not entertaining. They're far from it. The flip of an electric switch, a small spark

of static electricity, a spark from the scuffing of a nail in a shoe or from a carelessly dropped tool on a concrete cellar floor, a nonchalantly flipped match or cigarette, the sometimes inexplicable ignition—each can cause that

searing flashback, the rending explosion, and the raging fire that kills or horribly disfigures or maims anybody and demolishes anything within range.

It is said that history repeats itself. In the early days of automobiles, it was a common practice of car owners to store and to carry with them extra quantities of gasoline, but only in specially designed containers. In spite of all precautions, the hazard in storing and handling it soon made itself known. Today, the risk is even greater. One of the greatest hazards lies in the danger to life when the act of pouring the gasoline from an improper container into the gasoline tank of your car is performed. The tank inlets are designed to permit the ready delivery of gasoline through a nozzle attached to a hose. It is prac-

tically impossible to pour gasoline into these inlets from bottles, cans, and other containers unless a funnel is used, and proper funnels are seldom available. Even with a funnel, it is not at all uncommon for a considerable amount of the gasoline to be spilled over the car and in some cases onto the clothes of the person doing the pouring.

IN many localities, ordinances specifically prohibit the storing of gasoline, or allow it only upon certain conditions. Storage then, for some future emergency, is direct violation of the law. You endanger not only your own life and property but also your neighbor's.

You have a further responsibility to yourself. Needless to say, in event of a fire or explosion resulting from the storage of an excessive quantity of gasoline, the burden of the property loss incurred might revert to you. In times such as these, the loss of your home or other property would be a serious calamity.

The men in the fox-holes of Bataan and shattered Corregidor assumed their full share and more. We at home can certainly shoulder and carry our smaller shares. The preservation of life and property, the saving of all things vital to victory, is our common goal.

NOTHING BUT A COW BARN!

By R. D. MacDaniel

N. F. P. A. Member MacDaniel has a facility for dramatizing the little events that often change the course of our lives. Readers of VOLUNTEER FIREMEN may remember his Christmas story "Peace on Earth!" that appeared in the magazine last December. The Editors of VOLUNTEER FIREMEN have no information at hand to confirm or deny the following narrative of the actions of the tired fire inspector "In Old Chicago." We do appreciate, however, that it is such little incidents that frequently cause great fires. A cow barn is not a major fire hazard, but as a conflagration breeder Mrs. O'Leary's barn was all that was required to burn down a city and cause one of America's greatest conflagrations. Perhaps you can use this story to good advantage in getting rid of some of the "O'Leary's barns" and other similar fire breeders in the old home town.

A hitherto unpublished story has just fallen into our hands and since Fire Prevention Week occurs on the anniversary of the great Chicago Fire, we will pass it on.

It seems that one evening a fire inspector was going home after having had a hard day down by the stock yards trying to persuade the packing interests to put spark screens on their incinerators. To avoid being taken for a scab by the garbage collectors' union, which was then on strike, he was warily wending his way through alleys and across commons.

Almost home he was when he was arrested—halted, we mean—he hadn't done anything to be pulled in for and anyway the cop on that beat never looked down alleys even if at the moment he hadn't been having his first beer of the evening down at Noonan's saloon. He was halted by the gleam of a fire. No, it wasn't a fire but it looked like one. It was the light from a lantern coming through the cracks of the Widow O'Leary's cow stable.

Zzz-oup, zzz-oup, went the milk from the cow into the pail; zzz-oup, zzz-oup, went the milk as Mrs. O'Leary deftly worked by the light of the lantern.

NOW the inspector was tired. The inspector was hungry. He was in a hurry to get his shoes off and his pipe going and anyway he didn't care if Mrs. O'Leary's cow barn did catch fire. Not that he wasn't a conscientious fire inspector but that barn spoiled the view of Noonan's back door from his back door and on Sunday mornings—well, he would just as soon Mrs. O'Leary didn't have any cow barn. But tonight he just didn't feel that he could stand the odor of cremated cow so he expostulated with the widow—bawled her out, that is—about how the cow might swish her tail or something and tip over the lantern and what with all that straw around — well, you never could tell, and she didn't have an extinguisher handy either.

The inspector might just as well have saved his breath. It seems that Mrs. O'Leary had been milking by the light of this same lantern for the past forty years and no cow had ever swished it over yet. Not even Pansy who was full of the devil and maybe that was why she didn't give much milk. And anyway that straw wouldn't burn and moreover she didn't need one of them there ex-, ex-, what-you-call-ems because she had lived sixty-five years without one of 'em and they wasn't any good no-how. Besides what business was it of his and why didn't he go on home and leave an old woman to 'tend to her business?

So the inspector went on home and had his supper and took off his shoes and lit his pipe. He had just propped his feet on the back-porch rail when the widow's cow barn burst into flame. The wind was awfully strong and by the time the "Thirty-Twos" from over on Halstead Street arrived with that pair of big bays they was so cocky about, the fire was half-way to the river. The inspector didn't mind about the barn so much—the wind was in the right direction—but Noonan's was directly in line with the fire and now it didn't help any that the barn wasn't there because he couldn't go over to Noonan's on Sunday morning anyway.

Civilian Defense Forces Were Ready in the Aleutians

A RECENT release by Director James M. Landis of OCD praised the calm efficiency of the civilian workers and residents of Unalaska in the Aleutian Islands during the Jap air attack in June. Mayor J. W. Fletcher of Unalaska reported to OCD: "I was surprised at the way my town took the raid. There was no hysteria. We were ready with back-pack pumps, shovels and sand, but no incendiaries were dropped. We had assigned men as fire watchers, wardens and fire-fighters. They worked calmly during and after the attack."

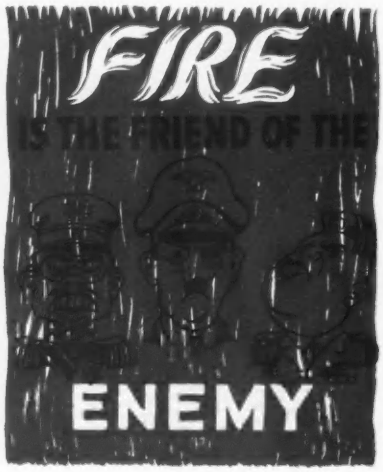
Today EVERY Fire Helps Hitler!

FIRE prevention is an important part of the fight, a major factor in the war on the home front! This year's fire prevention activities will be climaxed by the most important and spectacular observance of Fire Prevention Week that has yet been known. The date is October 4th to 10th this year, which means that there is none too much time to prepare your part in this patriotic event. N.F.P.A. members will again be in the forefront of Fire Prevention Week activities with fire departments playing a leading roll in every section of the United States and Canada.

Never before have the volunteer firefighters of America been called upon for such important contributions to the nation's welfare as they are asked to make in this war. Fire prevention and fire fighting, that double duty of every good volunteer department, become, when all's said and done, the basis of our civilian defense. Fire is the friend of the enemy! Whether in the home, on the farm, or in a war production plant, fire represents the gravest of threats to our fighting manpower, natural resources, and morale. The nation looks to the volunteers to stem the red tide! Fire Prevention Week this year will furnish an excellent occasion for demonstrating to your community the effectiveness of your department, for dramatizing fire hazards, for emphasizing the importance of more and better fire fighting equipment. It's the chance of a lifetime! Don't miss it!

APPRECIATING that Fire Prevention Week has never before been as important as it is this year, the N.F.P.A. Executive Office is making an all-out effort to give fire departments and other local fire protection agencies every possible help in preparing for a fire prevention program that will stimulate the interest and cooperation of every part of the community. N.F.P.A. members within a few days will be receiving a packet of Fire Prevention Week items that should help them plan and put over the best fire prevention program in the history of their community. Be on the lookout for this material. If you already have a fire prevention staff in your department cooperate with them in getting every civic group in town to take part in the big fire prevention program in October. Impress upon such groups that the prevention of loss of strategic materials by fire is just as much a part of winning this war as is the drive to save rubber, aluminum, and scrap metals. The fact that we must save even scrap materials, should impress everyone with the fact that we cannot afford to let any commodities be destroyed by fires due to carelessness or sabotage.

If your department has no full-time fire prevention staff, get a committee appointed to see that every member of the department and every citizen puts the shoulder to the wheel and cooperates in this great wartime fire prevention effort.



The three Axis ringleaders leering at you from the panel above appear this year on the N.F.P.A.'s striking red and black flyer entitled "Fire is the Friend of the Enemy." This flyer is intended for public distribution to dramatize the importance of controlling fire in wartime in the home, on the farm, and in business and industry. Sample copies are available gratis and additional copies available at 50 cents per hundred, or $3.50 per thousand, with imprinting at additional cost if desired.

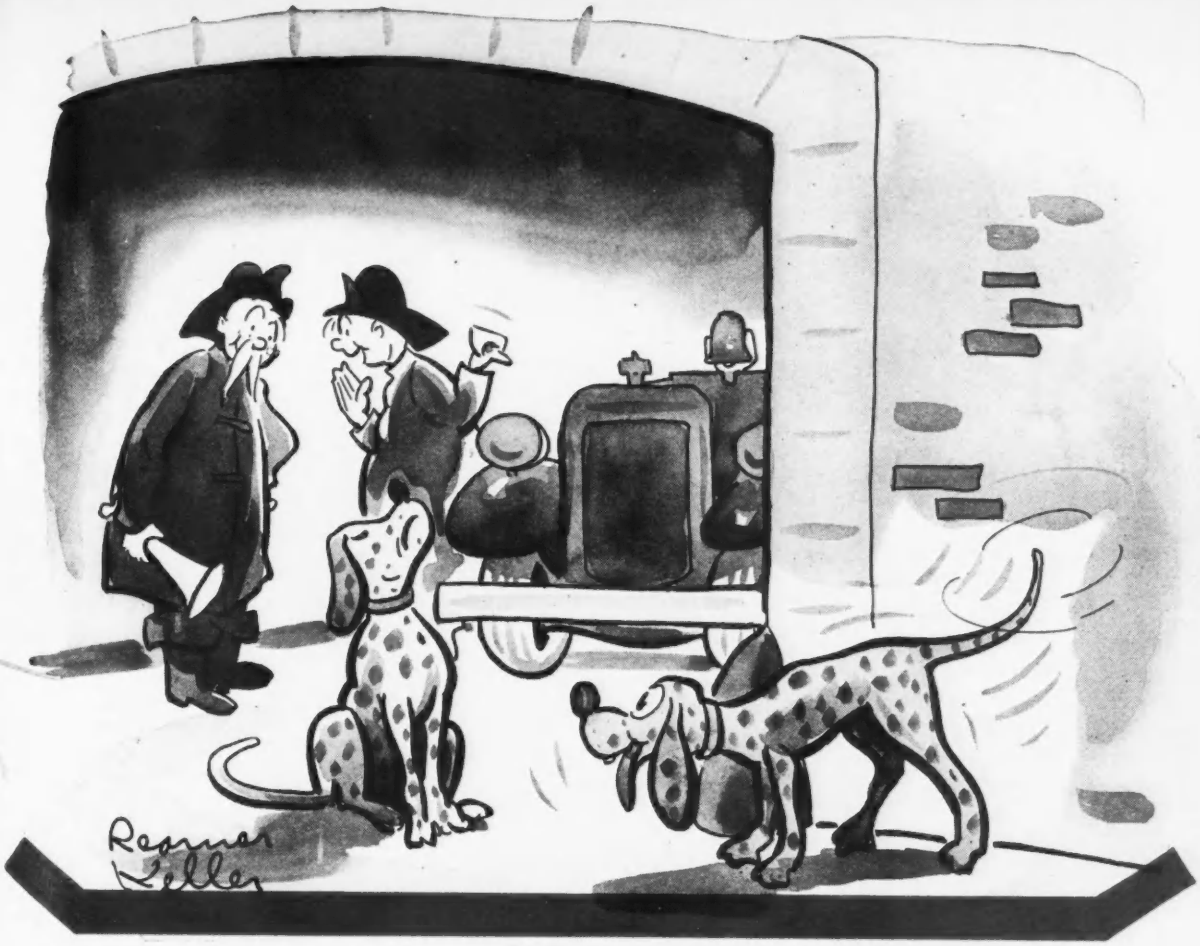
THE pièce de resistance of all Fire Prevention Week literature this year is the attractive new N.F.P.A. Fire Prevention Week Handbook. Spectacularly arranged and illustrated, and containing the complete "know-how" for your Fire Prevention Week program in its every detail, it will be an indispensible guide. The Fire Prevention Week Handbook shows how to plan a "week" that will be a sensational climax to your all-year efforts. There are suggestions to keep the program going at top pace from Sunday morning to Saturday night. Here's a big chance to sell your department and help prevent wartime fires! Each member fire department is to receive a copy of this Handbook within a few days. Extra copies may be obtained from the N.F.P.A. Executive Office, 60 Batterymarch Street, Boston, at a cost of 25 cents per copy.

Of course, when planning a Fire Prevention Week campaign every one is interested in having a poster that will attract attention and put across the fire prevention message. We think that this year we have just about the most striking poster ever sent out by the N.F.P.A. Entitled "Today *Every* Fire Helps Hitler," the poster is printed in red and black in a 12 by 16 inch size. Sample copies will be sent gratis. Additional copies may be purchased at $1.00 per hundred or $8.50 per thousand on the usual paper stock, or at $4.00 per hundred or $35.00 per thousand on substantial cardboard stock. There is space for local imprinting at the bottom of the poster.

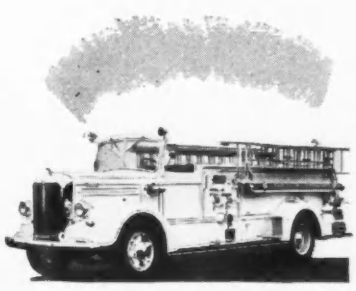
Among the other items being sent to members this month to help with the Fire Prevention Week program are an eight page Fire Defense Quiz; a red, white, and blue sticker announcing Fire Prevention Week and designed for display on store windows and counters and on factory bulletin boards; a 16 page Fire Prevention Picture Book for school use; a new 1942 edition of the popular Facts About Fire; an informative colored folder "Defend Your Home and Country Against Fire!"; and a two-color folder "Keep Your Home From Burning!"

All of these items are available from the N.F.P.A. Executive Office in quantities at moderate cost. Sample copies will be sent gratis. Why not write for a complete set of samples and get your Fire Prevention Week program started early?

EVEN in wartime it is possible to keep down fire losses if every member of the community understands the importance of fire prevention in our war effort. The fire record in the United States was bad last winter and many large fires are still hurting our war effort. Nevertheless, the war against fire can be won. The monthly fire record appearing on page 3 of this issue shows that in the last four months reported, fire losses were lower than during the same months last year. There appears to be good reason to believe that the upward rise in fire losses that has plagued our war effort can be stopped dead, if all hands work together.



He's from Company No. 2—they don't have a Mack!



Type 80—750 gallon centrifugal triple combination pumper, recently delivered to Ogden, Utah, fire department.

Keep your tail up, Dal, old boy—tough luck never lasts forever! Macks are constantly being added to the equipment of on-the-ball fire companies from coast to coast. Maybe, before this very year is out, your own company will boast a Mack and you won't have to eat crow for any man's dog!

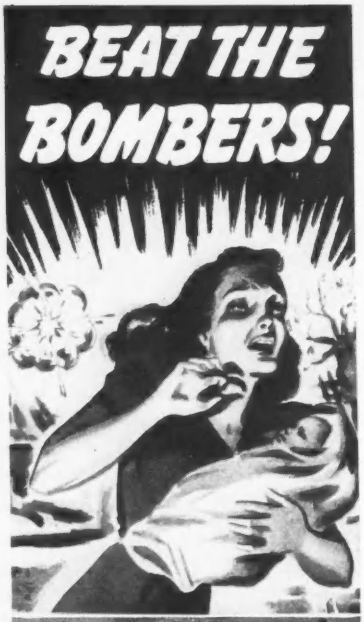
Mack fire apparatus is the product of the greatest engineering and manufacturing resources in the whole fire apparatus industry—is carefully designed from wheel rim to cab top to do specific jobs as well as they can be done. And every vital part is made in Mack factories, under the rigorous Mack inspection system, to the unusually exacting Mack standards of performance.

When service is needed, it can be got, quickly and economically, from any one of 70 direct Mack factory branches! Write for information on this superior fire apparatus today!

MACK MANUFACTURING CORP., FIRE ENGINE DIVISION, LONG ISLAND CITY, N. Y.

Mack

The Mack fire apparatus line includes triple and quadruple pumpers from 200 to 1500 gallon capacity, hose wagons, city service ladder trucks, squad cars—comprising 14 distinct and specialized models



Save LIVES with FEDERAL AIR RAID SIRENS

Tested and Proved in Europe!

Every city—every manufacturing plant should install efficient air raid warning sirens at once!

Federal Electric Company—the largest Siren manufacturer in the world is ready to help you!

Federal Air Raid Sirens have been proved under actual bombing conditions in Europe since 1938!

Write on official stationery, or wire for special air raid protection data telling how to plan, install and operate air raid warning sirens!

For earliest possible delivery ACT NOW!

FEDERAL ELECTRIC CO., INC.
"Siren Headquarters"
8717 South State Street, Chicago, Illinois

Home-Made Fire Kit Protects Rural Area

VOLUNTEER firemen of Lawrenceville, in southern Illinois, have not allowed such difficulties as priorities, shortages of critical materials, or other wartime handicaps to stand in the way of providing some immediate auxiliary fire equipment for rural property under the protection of the Lawrence County Fire Department. They have designed and built a home-made trailer apparatus which they consider to be a contribution to civilian defense.

All members of the department, which is made up of the young business men of Lawrenceville, have completed the prescribed civilian defense courses for firemen and they are actively engaged in training other workers. It was the conviction of these men that no matter how remote the threat of sabotage or air attack might be in their section, the need for fire protection is essential. They designed and built their "Jeep" at a cost of under $100 for materials and with less than 75 man-hours of labor.

For several years the Lawrenceville firemen have envisioned such a piece of auxiliary apparatus for use in residential and rural areas. They determined that such auxiliary apparatus must be inexpensive, easy to operate, simple in construction, and call for little maintenance. Their solution was to construct a trailer unit that may be hitched to any automobile and be operated by any able-bodied men.

The equipment on the trailer includes, in small measure, the essentials found on any fire truck, such as pump, hose and ladders. The outstanding feature is the manually operated pump. This is the "One-Arm Johnnie" that any man can operate and with which oil field men, and farmers who have worked with old fashioned steam threshing rigs, are familiar. It can throw two 5/8-inch garden hose streams a distance of more than 40 feet, or far enough to supply water to the roof of most two story houses. The pump can take suction directly from a 100 gallon tank carried on the trailer or, by the turning of a valve and use of its suction hose, water can be drawn from a well cistern, stream, pond or other similar water supply.

The body of the trailer is 4 by 6 feet in area and has a depth of 22 inches. It is mounted on a Chevrolet front axle and springs with 16 inch wheels and tires. The 10-gauge galvanized booster tank is provided with an X baffle plate. The trailer carries two 100-foot sections of 5/8-inch garden hose and 50 feet of 1½-inch hard suction hose with strainer.

Fire equipment carried includes: 16-foot extension ladder, axe, 5-gallon pump tank extinguisher, 1-quart carbon tetrachloride extinguisher, shovel, 100-feet of manila rope, bushel of dry sand, crow bar, twelve 3-gallon buckets, pike pole, 2-way lantern, and 15 feet of 2½-inch hose used for filling the booster tank from a fire hydrant where possible. In addition there is a first aid kit and stretcher. A waterproof tool box contains an assortment of tools and a supply of red flares.

During June, the Lawrenceville firemen displayed the "Jeep" as they have called their unit, before the fire fighters and defense workers attending the Illinois Fire School at Champaign. The unit also has been making the rounds of nearby rural communities with civilian defense authorities.

The fire trailer shown here was built by the volunteer firemen of Lawrenceville, Illinois, at a cost of less than $100 for parts they could not beg, borrow, or make themselves. Fire Chief H. W. Alexander, shown with the trailer, offers to help other communities devise similar units.

Fire writes another tragic tale –

This picture won't mean a thing to you if every fire hazard in your plant is properly protected against fire. But if you have machinery, equipment, materials or special production methods, which might be damaged or ruined by fire extinguishing liquids or water, we urge you to consider C-O-TWO now. Fires in spray rooms, drying ovens, storage vaults and dip tanks can be extinguished in split seconds with C-O-TWO carbon dioxide gas, one of the fastest fire extinguishing agents. Flammable liquids and electrical fires are knocked cold in seconds with C-O-TWO—and without the slightest damage to machinery or materials. There are portables, hose reel and rack units, automatic and manual fire extinguishing systems with fixed piping, and smoke detecting systems to protect your plant and materials. Please write for further information.

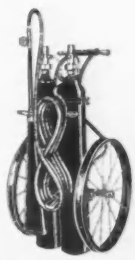
IT'S SAFER *because* IT'S FASTER

AUTOMATIC SYSTEM

—lever release type—for protection of varied hazards in one or more areas. Operated by either rate of temperature rise or, fixed temperature.

TYPICAL LIGHT PORTABLE UNIT

For quick knock-out of laboratory, bench fires, electrical equipment or sudden fire in flammable chemicals or liquids. Sizes:—2 to 20 lbs.



WHEELED TYPE PORTABLE

For quick action on sudden fires throughout your plant. The hose and horn are easily handled and the equipment is instantly mobile.

C-O-TWO is a registered trademark. To be safe, specify C-O-TWO and this company's name.

C-O-TWO FIRE EQUIPMENT COMPANY

NEWARK, NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada

INDIAN

CLEAR WATER

FIRE PUMPS

FIT INTO THE TIRE CONSERVATION PROGRAM

Timely Testimonial From West Coast User Emphasizes Their Effectiveness

"WITH automobile tires being rationed, the Smith Indian Pump becomes increasingly important for fire protection. This is due to the fact that it may be easily filled from springs, streams, irrigation ditches and it is not necessary for the fire pump user to depend on large tanks on automobile trucks for a source of water. The flexibility of the Smith Indian Fire Pump, its efficiency, sturdiness, make it a most economical fire pump—the most economical on the market."

Send for Catalog and Other Testimonials

OCD Program to Aid Firemen's War Training

The U.S. Office of Civilian Defense is developing plans for the training of firemen throughout the country in the problems of wartime fire protection. The plan contemplates cooperation with existing state and local firemen's training programs to increase the number of fire department members trained as instructors.

Under the direction of Chairman W. Fred Heisler, Consultant to OCD, the N.F.P.A. Committee on Firemen's Training met in Washington last month and approved details of the plan. An outline of recommended special training required by fire fighters in wartime was also approved.

FIRE SCHOOL NOTES

Illinois. The enrollment at the Illinois Fire College held at the University of Illinois in June broke all records for enrollment in its 18 years of history. A total of 602 men from 182 communities were enrolled. Plans are already under way for the Nineteenth Fire College to be held June 1-4, 1943. Illinois was one of the two states to first hold an annual fire school. The results this year show that the departments of the state are enthusiastically behind the school.

Iowa. This state, which was also one of the two states to first hold an annual fire school eighteen years ago, had a very successful fire college in June according to Lindon J. Murphy, Director, Iowa Fire Schools. A total of 429 men were in attendance from 114 cities and towns. Most of the men remained for the full four days of instruction on war-time fire fighting.

Pennsylvania. The first Western Pennsylvania Firemen's Training Institute is scheduled to be held at State Teachers' College, California, Pa., September 8-11, 1942. The fire school is sponsored by the Southwestern Chiefs and Assistant Chiefs' Association with the cooperation of the State Teachers' College, and the Public Service Institute of the State Department of Public Instruction. Mr. Arthur Espey, Head of the Pennsylvania State Fire School, will assist at this new school which is being held for firemen who cannot get to the regular Fourth Annual Fire School to be held at State College on August 31 to September 5. Applications may be secured from Mr. Joseph Huscroft, Secretary of the Western Pennsylvania Firemen's Training Institute, 308 River Street, North Charleroi, Pa. A registration fee of $1 should accompany each application.

JOIN THE N.F.P.A.

Every member receives a handsome membership certificate illustrating the history of fire protection.

N.F.P.A. membership is available to fire companies and fire departments through the Volunteer Firemen's Section of the National Fire Protection Association. Here's the simple plan:

MEMBERSHIP in the National Fire Protection Association costs $10 per year. Through the Volunteer Firemen's Section fire companies may obtain the advantages of N.F.P.A. membership.

- As a member, the fire company receives at its headquarters a set of all regular N.F.P.A. publications. This includes the *Quarterly* magazine, as issued.

- As a special service to the Volunteer Firemen's Section, each member fire company is entitled to have copies of the monthly magazine VOLUNTEER FIREMEN sent to the home addresses of 10 firemen.

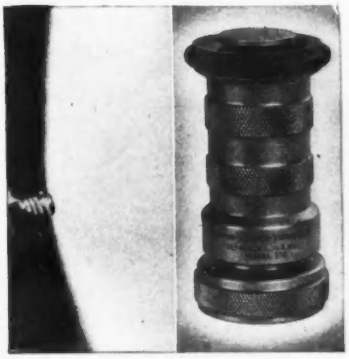
- If more than 10 firemen want to receive the magazine, an additional $1.00 should be sent in with the membership fee for each fireman in excess of 10 enrolled. Because of the large amount of material mailed to members, not less than $10 can be accepted from any company.

NEW TEXTS

The California Division of Fire Safety, 406 Montgomery St., San Francisco, headed by State Fire Marshal Lydell Peck, recently issued a 16-page booklet "Suggestions for Protection Against Sabotage in Industrial Plants."

"Organizing and Training the Industrial Fire Brigade" by Fred Shepperd, 20 pages. Educational bulletin of the International Association of Fire Chiefs, Daniel B. Tierney, Secretary, Arlington, Mass.

TRADE ANNOUNCEMENTS



American-LaFrance-Foamite Corp., Elmira, N. Y., announce the new "Alfcospray" nozzle shown on this page. The nozzle develops a cone spray that may be varied from 40 to 150 degrees without developing a solid stream that might be inadvertently applied to live electrical circuits during a fire involving electrical equipment where only a spray is desired.

The Erie Supply and Equipment Co., 426 Huron Ave., Sandusky, Ohio, has recently placed on the market a tamper-proof cabinet for fire extinguishers. This housing consists of a metal box with glass windows in the side to permit inspection of the contents of the cabinet. It is padlocked to prevent tampering. Hand pressure on a breaker-arm breaks the lock seal. The door then springs open exposing the extinguisher ready for use.

Transfilm Incorporated, 35 West 45th Street, New York, N. Y. last month released a new educational film prepared with the cooperation of OCD and entitled "Fight That Fire." This 16 mm sound film is available from the above address at $25 for a black and white print and $68 for a reel in color. With each print is supplied a 24 page illustrated fire defense handbook also entitled "Fight That Fire."

The film is designed to instruct the public as to what they should do when a fire occurs.

TRADE MARK
GAMEWELL
REG. U.S. PAT. OFF.

Specialists in Public Safety

Manufacturers of Emergency Signaling Systems

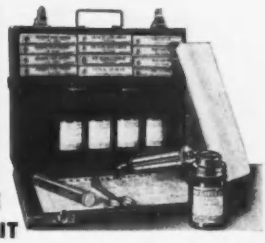
FIRE ALARM
POLICE SIGNALING
AIR RAID WARNING
INDUSTRIAL FIRE ALARM
FIRE & WATCHMEN SUPERVISORY
AUTOMATIC FIRE DETECTION

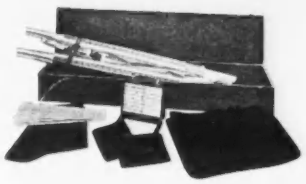
Two thousand municipalities, several thousand industrial plants and many of the largest institutions now use Gamewell Systems for the protection of life and property and to ensure the permanency of established business.

We freely cooperate in planning protective Signaling Systems.

THE GAMEWELL COMPANY
NEWTON UPPER FALLS, MASSACHUSETTS

EFFECTIVE FIRST AID
FOR THE FIREMAN—
ON THE JOB





M. S. A. FOILLE BURN SPRAY KIT

Foille—the modern treatment for burns—in jars connecting direct to efficient spray gun. Nothing to mix ur prepare—injury is quickly treated, pain relieved and healing hastened. All-Weather Kit includes unit-packaged dressings, etc.

M. S. A. FOLDING STRETCHER OUTFIT

Compact and complete. Strong folding stretcher opens to full Army size—wool and rubber blankets, chemical hot pads, splints and First Aid Kit included in steel carrying case, *equipped with brackets for horizontal mounting.*

M. S. A. COMBINATION TRACTION SPLINT

68" hardwood traction splint telescopes to compact size for carrying; quickly adjustable for arm or leg and may be securely locked at any length desired.

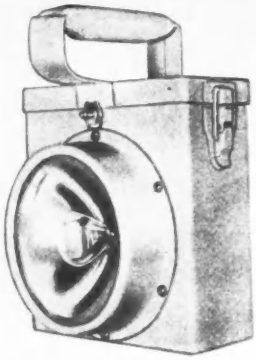
M. S. A. FIRST AID BELT

Worn over clothing, leaves both hands free. Water-repellent fabric case contains good supplies of triangular and compress bandages, wound and burn treatments, etc., in inner pockets.

WRITE FOR DESCRIPTIVE BULLETIN G-5!

MINE SAFETY APPLIANCES COMPANY
Braddock, Thomas and Meade Streets, Pittsburgh, Pa.
District Representatives in Principal Cities

MASTER★LIGHTS



WATERPROOF
BATTLE LANTERN
for FIREMEN

•

TYPE J2
MASTER ★ LIGHT

•

TOP QUALITY 2-CELL LIGHT

•

BATTERIES MAY BE CHANGED
IN 30 SECONDS

•

"MASTER★LIGHT★MAKERS"
CARPENTER MFG. CO.
168 Sidney St., Cambridge, Mass.

CAIRNS

OUTFITTERS TO
FIREMEN
SINCE 1836

HELMETS

TURN-OUT CLOTHING BADGES
SHIRTS CAPS BELTS
RUBBER COATS RUBBER BOOTS

LOOSE-LEAF
FIRE RECORD BOOKS
DEPARTMENT RECORD FORMS

Write for Catalog 30C

CAIRNS & BROTHER
444 LAFAYETTE STREET, NEW YORK

$10.00-$3.00-$2.00 EACH MONTH

PYRENE PRIZE LETTER CONTEST

THE summer months are a good time to try your hand at sending in a letter to the Pyrene Prize Letter Contest. Tell us in a few words of some case where a fire extinguisher did a good job.

It's the story we want, not letter writing ability. Get the facts down on paper and we will attend to any rewriting necessary to get the story into the space available in these columns. Be sure to give your fire department connection when writing.

The contest is sponsored cooperatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN to bring forth the lessons learned from actual fires of the value of fire extinguishers.

•

FIRST PRIZE—$10.00

FRANK F. EISENBEIS
Campus Fire Station, Oklahoma
A. & M. College, Stillwater

Saved Six Children!

An alarm came in about three o'clock one winter afternoon, with the location given as a certain rural school about five miles north of town. The rural engine was dispatched and upon arrival we found the fire practically out. A young man teacher had planned to oil the floors of his one-room school house. Due to the cold weather the floor oil, which was stored in a five-gallon can in an outside storeroom, was too thick to use. He placed the can of oil on the top of a large iron wood-burning stove in the center of the classroom to "thin out" the oil. Within the next five minutes the oil boiled over on the hot stove, immediately catching fire.

The students at the rear of the room fled through the only exit, which was at that end of the room. The remaining students were trapped at the front of the room. The fire was spreading to the floor by this time. The teacher dashed to the vestibule and returned with a 1-quart carbon tetrachloride extinguisher. While telling the students to leave the room as quickly as possible, he began to knock down the flames. Upon our arrival the fire had been practically extinguished by a bucket brigade, but the fact remains that but for the 1-quart extinguisher which checked the flames from the burning oil, we might have had to carry six little bodies from this school room.

SECOND PRIZE—$3.00

SAMUEL H. PROBERT, *Secretary*
Fire Company No. 1, Fair Lawn,
New Jersey

No Damage Done!

One evening last winter I arrived at the fire house a little early to prepare some papers for a meeting we were about to have. Suddenly the druggist from next door came running in, shouting: "My oil burner is aflame, bring an extinguisher quick!"

Just then our Captain arrived to attend the meeting. He heard the excitement and immediately ordered me to take the foam extinguisher and we went to the druggist's cellar. We found that the pit below the burner, where we later assumed there must have been a bad leak, was all ablaze. It took us just two minutes to put the fire out with the foam extinguisher. There was no damage done as the fire was confined to the pit and business went on as usual. The druggist thanked us and we were in time for the meeting of the Fire Company.

THIRD PRIZE—$2.00

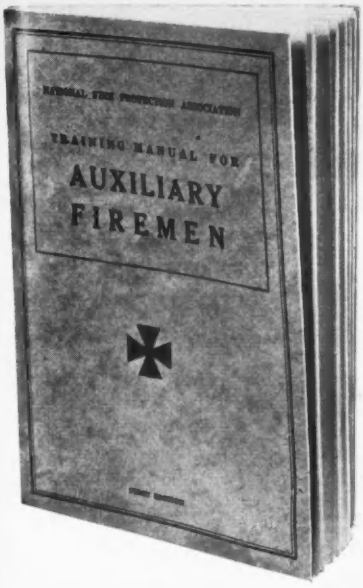
WALTER REDMAN, *Chief*
Fire Department, Flin Flon, Manitoba

Wooden Roof Fire

Three miles from our fire hall there is a former hotel building of frame construction now converted to use as apartments. About 4:30 p.m. on March 22nd, one of the tenants noticed that the wooden shingle roof was on fire, caused apparently by sparks from the chimney. Calling a neighbor, he asked him to take a 2½-gallon soda-acid extinguisher into the attic while he attacked the fire from the roof with two 1-quart carbon tetrachloride extinguishers. The action of the two small extinguishers was so effective that the fire was out when the neighbor reached the attic with the soda-acid unit. The fire department was not notified until the next day. This is worth recording as a serious fire in that locality would necessitate laying lines of hose 600 feet in length, and drafting from a lake which at the time was covered with two feet of ice.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 8th day of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.



Here's the book that over half a million men are waiting for:

TRAINING MANUAL FOR AUXILIARY FIREMEN

By
HORATIO BOND, Chief Engineer, N.F.P.A.
W. F. HEISLER, Chairman, N.F.P.A. Committee on Firemen's Training
R. J. DOUGLAS, Secretary, N.F.P.A. Committee on Firemen's Training

Based on A Guide for Training Auxiliary Firemen Prepared by the Committee on Firemen's Training National Fire Protection Association

416 pages, 225 illustrations, 7⅝ x 5¼ inches, $1.50 postpaid

NATIONAL FIRE PROTECTION ASSOCIATION
60 Batterymarch Street, Boston, Mass.

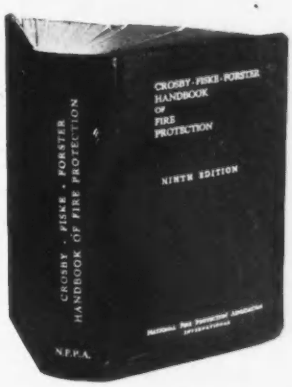
CROSBY—FISKE—FORSTER HANDBOOK OF FIRE PROTECTION

The Ninth Edition of the Handbook of Fire Protection is by far the most comprehensive yet issued. At least thirty percent of the text has been completely re-written. There are dozens of new tables, charts, diagrams and illustrations.

In keeping with the purpose of a reference book, all information is presented clearly, concisely and as far as possible in non-technical language. More than 100 men who are recognized authorities in the various branches of the fire protection engineering profession aided in the task of preparing this edition.

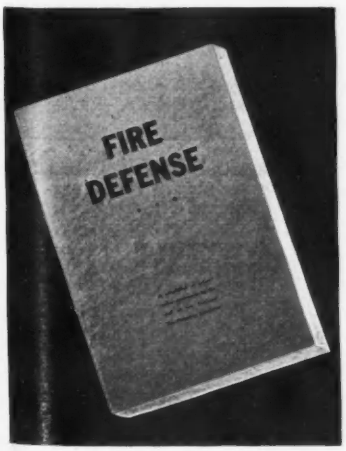
The Ninth Edition of the Handbook was issued last year with a printing of 5,000 copies expected to last for five years. Already the large demand has necessitated a second printing.

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street, Boston, Mass.



NINTH EDITION

1300 pages, $4.50 Postpaid



232 pages, 154 illustrations, price $1.50 postpaid

FIRE DEFENSE

Vitally Important to Every American Fire Department!

"Invaluable is the word that best describes the copious and excellent contents of this volume compiled by experts in the light of what has happened during two years of war. . . . Its technical background is excellent, its arrangement is clear and concise, and I must again bear testimony to the admirable illustrations."

(From an 8-page review of FIRE DEFENSE, written by former Chief Pordage of Edinburgh, Scotland, Past President of The Institution of Fire Engineers, a British organization.)

PART I.—FIRE FROM THE AIR

PART II.—SABOTAGE

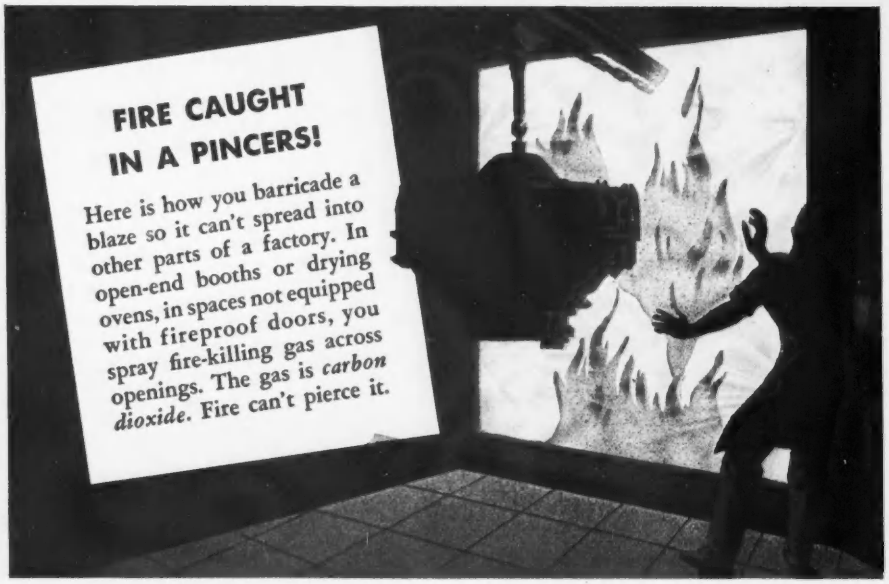
PART III.—ORGANIZATION FOR CIVILIAN DEFENSE

PART IV.—FIRE DEPARTMENTS & FIRE FIGHTING

PART V.—COMMUNICATIONS

PART VI.—DEFENSE PRODUCTION

FIRE AND HOW TO FIGHT IT!



FIRE CAUGHT IN A PINCERS!

Here is how you barricade a blaze so it can't spread into other parts of a factory. In open-end booths or drying ovens, in spaces not equipped with fireproof doors, you spray fire-killing gas across openings. The gas is *carbon dioxide*. Fire can't pierce it.

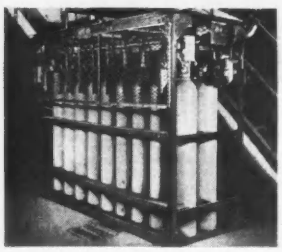
SNUFF OUT FIRE

Kidde extinguishers and built-in systems kill fires by smothering them. They blanket blazes with a barrage of carbon dioxide gas which keeps oxygen away from the fire. A cylinder holds the carbon dioxide under pressure and when the gas is released the pressure drives it out of the Kidde nozzles. No pumping needed—just open the valve and you hit the fire hard. Carbon dioxide is one of the fastest known extinguishing agents.

MOBILE FIRE FIGHTER

Has your plant a fire brigade of its own, with equipment centrally located for quick action? Do you have many electrical and flammable liquid fire hazards?

If the answer's *yes*, consider a Kidde Trailer Unit. Carries 300 lbs. of carbon dioxide with hose reel, special nozzle. Has two 20-lb. Kidde portables, two pure-water extinguishers for smaller fires. Here's a heavy-duty fire fighter, ideal for medium-to large-size industrial plants.



MAKE IT AUTOMATIC

If you have a manually operated Kidde system, think seriously about converting it to completely *automatic* operation. The Kidde automatic controls detect fire, release the extinguishing mechanism, smother flames . . . all in less than a minute.

The cost?—From $20 to $150, for the conversion to modern fire extinguishing. Automatic Kidde built-in systems kill fire quickly, without fumbling, without fear!

HERE is extra fire protection that may be combined with Kidde Built-in extinguishing Systems. The Kidde *screening nozzles* aren't meant for extinguishing. They simply provide a fire-stop . . . a barrage that the blaze can't penetrate.

Actual fire extinguishing is handled by Kidde Shielded Nozzles within the enclosure. They totally flood the space with a blizzard of Kidde carbon dioxide gas, creating an atmosphere in which fire can't live.

ENGINEERING FACTS—Kidde Screening Nozzles are used in pairs, opposed in position laterally. One set of nozzles aims directly across the opening, cuts off inrush of air. Second set aims at an inward angle to dilute oxygen which may penetrate the first screen of carbon dioxide gas.

Kidde

Walter Kidde & Company
Inc.
950 West St., Bloomfield, N. J.

FOR LABORATORY FIRES

Small in size, strong in its fire-killing wallop is the Kidde four-pounder. It is designed to extinguish laboratory fires, those blazes in chemicals and flammable liquids which must be snuffed out fast.

Trigger-control features the Kidde. Aim at the blaze, pull the trigger . . . and socko! A blast of carbon dioxide snow-and-gas smothers the fire *quick!*

HOW TO ORGANIZE

We suggest that you send for the booklet "Employee Organization for Fire Safety." Its 48 pages are loaded with helpful facts about keeping fire losses down, about air-raid organization, improved safety practices, setting up plant fire brigades, etc. Send 25¢ to National Fire Protection Association, 60 Batterymarch Street, Boston. Cost in quantities is less. Write for your copy today.

WHAT ABOUT WATCHMEN?

Watchmen must be courageous, fit and have no physical disability.

Two of America's most spectacular fires last year were caused by careless watchmen who muffed their jobs. Who stands guard in your plant? Is he alert, strong, responsible? If he's infirm, aged, or irresponsible, find him another job. Hire a good man in his place. Watchmen are vitally important!

THIS ADVERTISEMENT IS ONE OF A SERIES APPEARNG CURRENTLY IN INDUSTRIAL PUBLICATIONS.